REMARKS

In the present Office Action, claims 2, 4, 6–11, 35-37 and 40 were examined. Claims 2, 4, 6–11, 35–37, and 40 stand rejected and no claims are allowed.

By this Amendment, no claims have been amended, and claim 37 has been canceled, and no new claims have been added. Accordingly, claims 2, 4, 6-11, 35-36 and 40 are presented for further examination. No new matter has been added.

Claims 2, 4 and 6–10 and 40 stand rejected under 35 USC §102(b) as anticipated by, or in the alternative under 35 USC §103(a) as obvious over U.S. Patent No. 5,540,860 to Hosseini et al. alone or if necessary, in further view of the specification and examples of that reference.

Applicants respectfully submit that this rejection is untenable and should be withdrawn. Hosseini et al. relates to a process for producing a gel-free dispersion or solution of copper pyrithione employing at least one surfactant. The working examples of Hosseini et al. relate to the preparation of copper pyrithione.

More specifically, Hosseini discloses the chelation of a copper salt such as copper chloride with a pyrithione salt such as sodium pyrithione to produce particles of copper pyrithione in an aqueous solution of sodium chloride. However, no composite particles are formed having a shell and core, but rather simply particles of copper pyrithione. Accordingly, Hosseini does not disclose the instantly claimed composite particles, inherently or otherwise, or suggest such composite particles.

Preparation of copper pyrithione itself does not disclose or suggest to one of ordinary skill in the art how to make or produce a biocidal composition comprising composite particles having a shell and a core.

Furthermore, Hosseini et al. discloses overcoming or avoiding gelation or thickening experienced in a dispersion or solution of copper pyrithione. As stated in Hosseini et al.:

> the efficacy of the surfactant(s) employed in the process of the present invention, in overcoming or avoiding the above-described gelation or thickening problem, is believed by the present inventors to be attributable to the chemical affinity between the copper pyrithione (a polar molecule) and the molecules of the surfactant. It is believed that this affinity reduces or eliminates the propensity of the copper pyrithione molecules to hydrogen-bond to each other, thereby reducing or eliminating agglomeration of the copper pyrithione molecules.

(Col. 2, lines 30-40).

Since Hosseini et al. describes reducing or eliminating the bonding of copper pyrithione molecules to one another, Applicants submit that Hosseini et al. teaches away from the present invention. Applicants submit that copper pyrithione molecules that do not bond to one another cannot properly be seen as composite particles having a shell and a core of any kind, much less ones having a copper pyrithione shell as recited in the instantly claimed invention.

It is alleged in the paragraph bridging pages 6 and 7 of the outstanding Office Action that Hosseini discloses the instantly claimed invention at column 2, lines 6-16 thereof. However all that is disclosed in that portion of the reference are various shapes of copper pyrithione particles which may contain a trace amount of surfactant on the outer surface of the particles. This does not disclose or suggest the instantly claimed composite particles containing a shell and a core containing reaction product (copper pyrithione) at the shell/core interface. In other words, rather that a "coating" such as a surfactant coating, the instantly claimed shell is chemically bound to the core at the shell/core interface.

Since Hosseini et al. does not teach or suggest the instantly claimed biocidal composition, but rather teach away from it. Accordingly, the outstanding claim rejection based upon this reference is untenable and should be withdrawn.

Claims 2, 4 and 6–11 and 40 are rejected under 35 USC 103(a) as being unpatentable over Hosseini et al. alone or view of the specification and U.S. Patent No. 5,342,437 to Gavin et al. It is pointed out in the outstanding office action that Hosseini et al. particles differ from the composition of claim 10 and claim 11 by failing to teach utilizing a "fatty acid coating." Instead, the Office Action relies on Gavin et al. as teaching incorporating fatty acids into pyrithione compositions prior to incorporation into manufacturing articles, and that this solves the gelation problem that might otherwise exist. Nonetheless, the teaching of Gavin et al. does not suggest biocidal compositions of comprising composite particles, much less suggest the instantly claimed invention.

Hosseini et al. has been discussed above as teaching away from the present invention. The outstanding Office Action questions such teaching away. From the quoted portion of the Hosseini given above, it is clear that Hosseini employs surfactant to avoid agglomeration of the

copper pyrithione disclosed therein. However, even if agglomerated, a combination of copper pyrithione particles does not suggest the instantly claimed composite particles being chemically bonded at the shell/core interface. Gavin et al discloses a paint and paint base and a process and composition for providing a stable gel-free dispersion of zinc pyrithione plus cuprous oxide in paint.

The rejection based on the combination of these reference is untenable as the result sought to be achieved by the combination of the references does not disclose or suggest a biocidal composition comprising composite particles containing a shell and core, as claimed in the instant application. For example, Hosseini et al. discloses a gel-free dispersion or solution of copper pyrithione employing at least one surfactant. As discussed in more detail above, Applicants submit that Hosseini et al. actually teaches away from the instantly claimed invention by virtue of its disclosing methodology to reduce or eliminate the agglomeration of copper pyrithione. Gavin et al. discloses the incorporation of fatty acids into pyrithione compositions in order to avoid gelation. This disclosure can be viewed as another method of avoiding particle agglomeration. Accordingly, when viewed singly or in combination, neither reference suggests composite particles of the instantly claimed invention. Accordingly, the rejection of the instant claims based upon that combination is believed to be untenable and should be withdrawn.

Claims 2, 4, 6–11, and 40 are rejected under 35 USC §103(a) as being unpatentable over Hosseini et al. alone in view of the specification (e.g. page 7, figures and examples) and examples (e.g. example 1) to demonstrate inherency and Gavin et al. U.S. Patent No. 5,342,437 (8/94). Applicants respectfully submit that this rejection is untenable and should be withdrawn.

Hosseini et al. is discussed in more detail above. The Examiner notes in the outstanding office action, Kappock et al. teach transchelation. However, contrary to the present invention, Kappock et al. teaches complete transchelation of zinc with a soluble pyrithione salt to produce an insoluble pyrithione salt. (See col. 3, lines 28-32).

As Hosseini et al. and Kappock et al. teach away from the biocidal composition of the present invention. This is not surmise, but rather a conclusion based on the specific teachings of the references themselves. Applicants respectfully submit that this rejection is untenable and should be withdrawn.

Cancellation of claim 37 avoids the outstanding rejection of that claim under 35 USC 112.

Reconsideration of the claims as instantly presented is respectfully requested, together with an early receipt of a Notice of Allowance thereof.

Please apply any credits and charge any deficiencies to our Deposit Account No. 23-1665.

Respectfully submitted,
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